

## REMARKS

A review of the claims indicates that:

- A) Claims 18 and 22-25 are previously presented.
- B) Claims 1-7, 10-14, 16, 17, 19-21, and 26-40 were previously withdrawn under a prior restriction.
- C) Claim 15 is cancelled.
- D) Claims 8 and 9 are currently amended.

In view of the following remarks, the Applicant respectfully submits that all aspects of the Office Action mailed 06/02/2008 have been addressed.

## **Claim Amendments**

The Applicant has made a number of claim amendments. These amendments are not a reflection of an opinion of the allowability of any claim, or of the content, disclosure and/or teaching of the prior art of record. Instead, the claim amendments reflect a desire on the part of the Applicant to move the prosecution of this application forward, to reduce the expense and time of the pending period, and to thereby expedite prosecution. The Applicant retains the right to file claims having the same or similar scope at a future date.

## **Claim Rejections Under 35 U.S.C. §112, Second Paragraph**

Claim 9 stands rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Applicant amends the claim as suggested by the Examiner during the interview to clarify the subject matter. Support for the amendment is found in figure 1. Thus, the claim is supported and no new matter has been introduced.

1 Applicant respectfully submits that this claim now complies with §112, second  
2 paragraph and respectfully requests that the §112 rejection be withdrawn.

3 **Claim Rejections Under 35 U.S.C. § 102(a)**

4 Claims 8, 9, and 18 were rejected under §102(a) as being anticipated by  
5 U.S. Patent Application No. 2002/0177026 to Hatano et al. (hereinafter “Hatano”).  
6 In response, the Applicant respectfully traverses the rejection.

7 **Independent Claim 8**

8 Without conceding the propriety of the rejection and only to advance the  
9 prosecution of this application, Applicant amends independent claim 8 to further  
10 clarify features of the claimed subject matter. In particular, the Applicant has  
11 amended Claim 8 to specify the cantilevered configuration of the current collector  
12 in the fuel cell. Support for this amendment can be found at least at figure 1,  
13 showing current collector #106 cantilevered within the fuel cell.

14 Amended claim 8 now recites a method, comprising (emphasis added):

- 15 • obtaining a first current collector layer suitable for  
16 physically supporting parts of a fuel cell stack,  
17 wherein the fuel cell stack includes at least two  
18 electrodes and an electrolyte layer;
- 19 • depositing a first electrode on the first current  
20 collector layer;
- 21 • depositing the electrolyte layer of the fuel cell stack  
22 on the first electrode layer;
- 23 • depositing a second electrode layer of the fuel cell  
24 stack on the electrolyte layer;
- 25 • depositing a second current collector layer of the  
fuel cell stack on the second electrode layer; and
- mounting the fuel cell stack within an enclosure  
defining a chamber of a fuel cell, wherein a  
connection between an inside surface of the  
enclosure and the first current collector layer  
physically supports the fuel cell stack within the

chamber, and wherein the first current collector layer is cantilevered within the chamber of the fuel cell to support the fuel cell stack.

The Applicant respectfully submits that no such method is described by Hatano, and reminds the Examiner of the discussion with the Applicant's representative, Dillon Murphy, to that effect.

## Hatano fails to disclose a current collector layer cantilevered within the chamber of the fuel cell to support the fuel cell stack

Hatano describes a fuel cell plate structure including a cell element layer composed of a solid electrolyte, an air electrolyte and a fuel electrode layer, a porous base body supporting the cell element layer, and a gas-impermeable member having electric conductivity. *See, abstract.* In Hatano, the porous base body (similar to a current collector) is affixed in the fuel cell housing as a simply supported beam with the beam supported at both ends and loads applied between the supports. *See, figures 10A and 10B, and paragraph [0115].* The construction in Hatano is similar to that found in a post and lintel system, with the horizontal porous base body explicitly supported at both ends within the fuel cell chamber.

In contrast, the Applicant’s amended claim 8 recites, “*wherein the first current collector layer is cantilevered within the chamber of the fuel cell to support the fuel cell stack.*” The Applicant’s current collector is a projecting horizontal beam fixed at one end only. *See*, Applicant’s specification, figure 1. Supporting the fuel cell stack in this manner allows the performance to be increased by allowing the electrodes to be thin without compromising structural integrity. *See*, Applicant’s specification, page 3, lines 23-29. Thus, claim 8, as amended, recites subject matter not taught or suggested by the prior art of record.

Because the claim recites features (e.g. the cantilevered current collector) not disclosed in Hatano, the Applicant respectfully submits that Claim 8, as amended, is not anticipated by Hatano. While the Jankowski reference (US 6,638,654) was not cited in the rejection, the Applicant additionally notes that Jankowski fails similarly fails to teach or suggest the amendments to Claim 8. Accordingly, the Applicant respectfully requests the § 102 rejection of this claim be withdrawn.

**Claims 9, 18, 19, and 22-25** depend from Claim 8 and are allowable due to their dependence from an allowable base claim. These claims are also allowable for their own recited features that, in combination with those recited in Claim 8, are neither disclosed nor suggested in references of record, either singly or in combination with one another. Accordingly, the Applicant respectfully requests that the rejection of these claims be removed.

## Conclusion

The Applicant submits that all of the claims are in condition for allowance and respectfully requests that a Notice of Allowability be issued. The Applicant would welcome a telephone discussion of the claims and the art, to resolve the allowability of any claims.

Respectfully Submitted,

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